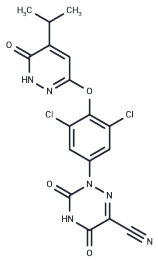
Data Sheet (Cat.No.T3595)

TargetMol

Resmetirom

Chemical Properties



CAS No. : 920509-32-6

Formula: C17H12Cl2N6O4

Molecular Weight: 435.22

Appearance: no data available

Storage: store at low temperature,store under nitrogen
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Resmetirom (VIA-3196) is a highly selective thyroid hormone receptor β (THR-β) agonist.
Targets(IC50)	Thyroid hormone receptor(THR)
In vitro	Resmetiromis 28-fold selective for THR-β (EC50=0.21 μM) over THR-α (EC50=3.74 μM) in a functional assay. Resmetiromshows an IC20 of roughly 30 μM for blockage of the hERG channel. The IC50 for CYP3A4/5 and for CYP2C19 is >50 μM, and there is only weak inhibition (roughly 22 μM) of CYP2C9[1].
In vivo	MGL-3196 demonstrates favorable exposures and acceptable oral bioavailability in rats, with both the volume of distribution and clearance being low. When administered orally to DIO mice, MGL-3196 in a suspension form shows dose-dependent increases in exposure[1]. Treatment with MGL-3196 leads to decreased cholesterol levels and liver size, attributed to the reduction of liver triglycerides (TG). Importantly, no impact is observed on bone mineral density (BMD), or the size of the heart or kidneys in animals receiving MGL-3196[1].

Solubility Information

Solubility	DMSO: 60 mg/mL (137.86 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2977 mL	11.4884 mL	22.9769 mL
5 mM	0.4595 mL	2.2977 mL	4.5954 mL
10 mM	0.2298 mL	1.1488 mL	2.2977 mL
50 mM	0.046 mL	0.2298 mL	0.4595 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Kelly, M., Pietranico-Cole, S., Larigan, J., Haynes, N., Reynolds, C., & Scott, N. et al. (2014). Discovery of 2-[3,5-Dichloro-4-(5-isopropyl-6-oxo-1,6-dihydropyridazin-3-yloxy)phenyl]-3,5-dioxo-2,3,4,5-tetrahydro[1,2,4]triazine-6-carbonitrile (MGL-3196), a Highly Selective Thyroid Hormone Receptor β Agonist in Clinical Trials for the Treatment of Dyslipidemia. Journal Of Medicinal Chemistry, 57(10), 3912-3923. doi: 10.1021/jm4019299

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